IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Peter A. HANSEN et al.	§	Group Art Unit:	UNKNOWN
Serial No.:	Not Yet Assigned	§	Examiner:	UNKNOWN
Filed:	Concurrently Herewith	§	Atty. Docket No.:	1662-39300
For:	Intelligent Power Management For A Rack of Servers	§	Client Ref. No.:	P01-3697

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Date: September 28, 2001

Sir:

This paper is filed prior to any action on the merits in this case. The Examiner is requested to enter the following amendments prior to the initial examination.

AMENDMENTS

IN THE SPECIFICATION:

Applicants present amendments to the specification by a request for paragraph substitution indicated below. This paragraph is included in the attached appendix with the additions thereto indicated by underlining, and deletions enclosed in brackets.

Please replace paragraph 0001 with the following:

[0001] This application is related to co-pending application Serial No. _____ (Att'y. Docket No. 1662-39400) entitled "Broadcast Compressed Firmware Flashing." This application is also related to co-pending application Serial No. _____ (Att'y Docket No. 1662-40700) entitled "Method For Determining a Primary Communication Module."

Please replace paragraph 44 with the following:

[0044] For purposes of discussing release of power during normal operations, consider a chassis 20 substantially populated with servers 30, all drawing power from the power supply system 40. For any of a myriad of reasons, a server may be powered down. These reasons may include, but are not limited to, pressing of a power button on the server 30, performing a software shutdown, or abruptly removing the server 30. In the cases where an orderly shutdown is performed, *e.g.*, pressing the power button and performing software shutdowns, the server 30, in particular the communication device 32, preferably communicates with its respective chassis communication module 80 that the power has been released. A similar situation arises where there server 30 reduces power consumption, such as by entering a low power mode or sleep state. Thus, the release of power is then preferably communicated to the primary power supply communication module 70. If other servers 30 had previously been denied permission to power on for lack of available power, those servers 30 may now be granted permission. In the case where the server 30 is abruptly removed, the preferred communications may not take place; however, each chassis communication module 80 preferably monitors the presence of each server 30, and informs the primary power supply communication module 70 of the effective release of power.

IN THE CLAIMS:

Please cancel claim 36 and 37.

Please add the following new claims:

50. (New) The method of allocating power in a rack mounted server system as defined in claim 1 wherein requesting permission by the server to allocate power further from the central power supply further comprises:

sending a request to allocate power; and

sending a number representing an amount of power requested.

51. (New) The method of allocating power in a rack mounted server system as defined in claim 50 further comprising:

querying a read only memory device within the server to obtain the number representing an amount of power requested; and

sending the number representing an amount of power requested to the central power supply across a primary communication pathway.

52. (New) The power management system as defined in claim 10 wherein the server is further configured to send a number representing an amount of power needed along with the request for permission.

53. (New) The power management system as defined in claim 52 further comprising:

a read only memory device mounted in the server, the read only memory device storing the number representing an amount of power needed; and

wherein the server is adapted to obtain the number representing an amount of power needed by accessing the read only memory device.

54. (New) The power management system as defined in claim 53 wherein the read only memory device further comprises an electrically erasable programmable read only memory.

55. (New) In a rack mounted server system having a computer mounted therein, the computer powered by a central power supply system apart from the computer, a method of de-allocating power comprising:

requesting a shut down of the computer;

sending a message to the central power supply system indicating release of the power used by the computer; and

shutting down the computer.

56. (New) The method of de-allocating power as defined in claim 55 wherein requesting a shut down of the computer further comprises pressing a power button.

57. (New) The method of de-allocating power as defined in claim 55 wherein requesting a shut down of the computer further comprises performing a software shut down.

58. (New) The method of de-allocating power as defined in claim 55 wherein sending a message to the central power supply system further comprises sending the message including a number indicating an amount of power to be released.

59. (New) A method of allocating power to a server in a rack mounted server system, the server coupled to a central power supply, the method comprising:

a) operating the server in a low power state;

b) requesting permission for the server to transition to a higher power state; by

c) sending a request by the server to the central power supply to allocate power; and

d) allocating power by the server if permission is received.

60. (New) The method of allocating power as defined in claim 59 wherein operating the server in a low power state further comprises operating the server in a sleep state.

61. (New) The method of allocating power as defined in claim 59 wherein operating the server in a low power state further comprises operating substantially only a communication device within the server.

62. (New) A method of de-allocating power to a server in a rack mounted server system, the server powered by a central power supply apart from the server, the method of de-allocation comprising:

a) operating the server in a high power consumption state;

b) sending a message to the central power supply indicating a release of power of power by the server; and

c) transitioning the server to a low power state.

63. (New) The method of de-allocating power as defined in claim 62 wherein transitioning the server to a low power state further comprises transitioning the server from an operational state to a sleep state.

64. (New) The method of de-allocating power as defined in claim 62 wherein transitioning the server to a lower power state further comprises transitioning the server from an operational state to a powered off state.

65. (New) The method of de-allocating power as defined in claim 62 wherein sending a message to the central power supply indicating a release of power of power by the server further comprises sending an indication of the amount of power released.

66. (New) The method of de-allocating power as defined in claim 65 wherein transitioning the server to a low power state further comprises transitioning the server from an operational state to a sleep state.

REMARKS

AMENDMENTS TO THE CLAIMS

With this Preliminary Amendment, Applicants cancel claims 36 and 37, and present new claims 50 - 66. The subject matter of the new claims finds support in the specification in paragraphs 0042, 0043 and 0044.

AMENDMENT TO THE SPECIFICATION

Applicants respectfully submit that the amendments presented to the first paragraph of the specification are to correctly identify the related applications, the amendments presented to the specification is to correct a grammatical deficiency, and that no new matter is submitted by either of these amendments.

CONCLUSION

If any additional fees are required or if the fees submitted are in excess of that required, please appropriate charge or credit those fees to Conley, Rose & Tayon, P.C. Deposit Account No. 03-2769/1662-39300/JMH.

Respectfully submitted,

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ATTORNEY FOR APPLICANTS

APPENDIX

Marked-Up Copy of the Replaced Paragraphs

[0001] This application is related to co-pending application Serial No. _____ (Att'y. Docket No. 1662-39400) entitled "Broadcast Compressed Firmware Flashing." [This application is also related to co-pending application Serial No. _____ (Att'y. Docket No. 1662-39100) entitled "Redundant Data and Power Infrastructure for Modular Server Components in a Rack."] This application is also related to co-pending application Serial No. _____ (Att'y Docket No. 1662-40700) entitled "Method For Determining a Primary Communication Module."

[0044] For purposes of discussing release of power during normal operations, consider a chassis 20 substantially populated with servers 30, all drawing power from the power supply system 40. For any of a myriad of reasons, a server may be powered down. These reasons may include, but are not limited to, pressing of a power button on the server 30, performing a software shutdown, or abruptly removing the server 30. In the cases where an orderly shutdown is performed, *e.g.*, pressing the power button and performing software shutdowns, the server 30, in particular the communication device 32, preferably communicates with its respective chassis communication module 80 that the power has been released. A similar situation arises where there server 30 reduces power consumption, such as by entering a low power mode or sleep state. Thus, the release of power is then preferably communicated to the primary power supply communication module 70. If other servers 30 had previously been denied permission to power on for lack of available power, those servers 30 may now be granted permission. In the case where the server 30 is abruptly removed, the preferred communications may not take place; however, each chassis communication module 80 preferably monitors the presence of each server 30, and informs the primary power supply communication module 70 of the effective release of power.